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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,072	02/27/2004	Shigeo Kudo	F-8140	7278
28107 7590 02/21/2007 JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			EXAMINER KNABLE, GEOFFREY L	
			ART UNIT	PAPER NUMBER
			1733	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/21/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/789,072

Applicant(s)

KUDO ET AL.

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 4-7 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 25, 2006.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the last two lines of claim 1, there is no explicit antecedent for "the rubber strip extruded from the die" as the earlier lines refer to extruding to form a "ribbon" rather than a "rubber strip."

In claim 2, lines 2-3, with the amendment to claim 1 to define the head as independent from the die and not mention temperature control of the die, the reference to "the temperature as controlled in the die is equal" in claim 2 is confusing as this seems to indicate that there was a previous mention of control of the die temperature. It would be clearer if this were changed to for example "the temperature is controlled in the die to be equal".

4. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-205512 to Toyo Rubber (newly cited) taken in view of Böhm et al. (US 5,156,781 - newly cited) and Ogawa et al. (US 2002/0089077), and optionally further in view of at least one of [Hendry (US 2,746,089) and Henning (US 2,688,770)].

JP '512 discloses extruding a rubber strip/ribbon in a cross-section that is progressively reduced in thickness from the centerline toward opposite edges (e.g. figs. 2 and 5). Details of the extruder beyond the implied die shape are not however provided. Böhm et al. is directed to a desirable precision extrusion system for extruding strips of accurate profile to be used to manufacture tires (e.g. col. 1, lines 5-20) and in particular suggests an extruder including a casing, screw shaft, head and die, the temperature being controllable throughout the extruder (e.g. col. 3, lines 44-46; col. 7, line 29 - col. 8, line 52; col. 12, lines 14-20). Further, the casing of the extruder is described as heated while the screw can be cooled (col. 7, lines 29-42), this seemingly indicating that the casing (heated barrel 27) is controlled to be higher in temperature than the screw. The relative temperature of the head is not however described.

Ogawa et al., as noted in the last office action, discloses extruding a rubber material suitable for winding to form a tire rubber part, the reference specifically suggesting provision of temperature control and in particular indicating that

“Advantageously, the rubber material flowing through the screw extruder unit and the gear pump unit is maintained at a temperature within a range of approximately 85-95⁰ C., and the rubber material flowing through the extrusion head unit is maintained at a temperature within a range of approximately 95-100⁰C. “ (paragraph [0015]).

As such, this reference is considered to suggest that the temperature in the head region of an extruder for extruding strips for tires, the extruder including a screw portions as well as gear pump, advantageously be controlled higher than that in the main part of the extruder. Given that Böhm et al. is also directed to an extruder including a screw and gear pump for forming tire strips, it is considered to have been

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obvious in view of these teachings to effect the temperature control in the casing and head of an extruder as in Böhm et al. (used to extrude strips as in JP '512) so that the temperature in the head is higher than the main extruder portion. Further, it is considered that this reference alone of further in view of Hendry and Henning provides additional motivation to control the temperature of the casing higher than the screw for the same reasons set forth in the last office action. As to the die including three connected cavities, it is considered that the die configuration suggested by Ogawa et al. can be said to include three connected cavities, namely "70", "75" and the unnumbered cavity between these two.

As to claim 2, given that the Ogawa et al. teachings suggest providing a separate heater just for the die/head as well as expressing no indication that the die should be at a lower temperature, it is considered implicit or obvious that this reference would have been read as teaching that the die would or should be at least the same temperature as the rest of the head. As to claims 3 and 6-11, the requirements of these claims are considered to be clearly suggested by JP '512 (e.g. abstract, figures, paragraph [0023]).

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments to the claims.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

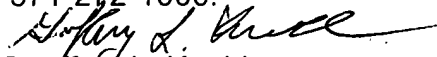
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
February 19, 2007